How much land is needed to feed King County's population?

The chart below shows how much land it might take to grow about 27 of the most common fruits and vegetables consumed by an average American as reported by U.S. Department of Agriculture (USDA) Economic Research Service consumption data. Production estimates are based on published yield data from Washington State and Oregon State Universities or local growers when available. The amount of calories a person needs is based on a 2,000 calorie a day diet.

2,000 calories / person x 2 million people =4 billion(4,000,000,000)calories/day x 365 days = 1.46 trillion (1,460,000,000,000) calories/year

	Per capita consumption lbs /year	x 2 million people= tons	yield/ acre/ton	acres needed to supply	Total lbs (1,000)	Calories/lb	Total calories (1,000)	% of Per Capita consumption
Snap beans	1.8	1,800	6.5	277	3,601	80	288,080	100%
Broccoli	5.4	5,400	5.5	982	10,802	139	1,501,478	100%
Brussels sprouts	0.21	210	7.8	27	421	166	69,919	100%
Cabbage	7.8	7,800	13	600	15,600	108	1,684,800	100%
Carrots	8.6	8,600	28	307	17,192	110	1,891,120	100%
Cauliflower	1.6	1,600	8	200	3,200	20	640,000	100%
Sweet corn	8.9	8,900	9	988	17,784	264	4,394,976	100%
Cucumbers	5.8	5,800	6.4	906	11,596	45	521,856	100%
Garlic	2.1	2,100	5	420	4,200	405	1,701,000	100%
Collard greens	0.49	490	8.4	83	1,394.4	22	30,677.8	100%
Kale	0.28	280	22.4	13	582.4	96	55,910.4	100%
Head lettuce	20.9	20,900	16	1,306	41,792	57	2,382,144	100%
Romaine and leaf	11.2	11,200	10	1,120	22,400	50	1,120,000	100%
Mustard greens	0.42	420	8.4	50	840	29	24,360	100%
Onions	20.4	20,400	20	1,020	40,800	121	4,936,800	100%
Potatoes	44.7	44,700	25	1,788	89,400	360	32,184,000	100%
Pumpkin	4.2	4,200	15	280	8,400	160	1,260,000	100%
Radishes	0.49	490	6	82	984	59	56,056,	100%
Spinach	1.8	1,800	9	200	3,600	104	374,400	100%
Summer Squash	4	4,000	20	200	8,000	35	280,000	100%
Tomatoes	16.4	16,400	14	1,171	32,788	81	2,655,828	100%
Turnip greens	0.41	470	8.4	6	100.8	95	9,576	100%
				12026			58,062,980.4	
Blackberries	0.11	111	5	22	220	150	33	100%
Blueberries	0.11	350	7	50	700	162	113,400	100%
Raspberries	0.33	270	3.5	77	539	121	65,219	100%
Strawberries	8	8,000	5.5	1,600	16,000	92	1,472,000	100%
Apples fresh & Juice)	40	40,000	60	670	20,100	106	2,130,600	13070
,				2,419			3,781,252	
TOTAL				14,445			61,844,232	1

The chart below indicates how much land might be needed to raise livestock for consumption. There are two lines for each animal. The first line shows how much land it would take to produce 100% of what might be consumed. The second line shows how much could be produced on 6,000 acres. For example, for beef the top line shows that 372,000 acres would be needed to raise all the beef that county residents consume. The second line shows that King County farmers can only produce less than 1% of the beef animals we consume on 6,000 acres

	Per capita lbs /year	x 2 million people= tons	# of animals needed	Acerage needed	Total Lbs (1,000)	Calories/lb	Total Calories (1,000)	% of Per Capita consumption
Beef	62	62,000	124,000	372,000	124,000	600	74,400,000	
	62	500	2,000	6,000	1,000	600	600,000	0.08%
Pork	46	46,000	707,692	707,692	92,000	700	64,400,000	
	46	138	6,000	6,000	276	700	193,200	0.03%
Sheep	0.75	750	37,500	27,750	1,500	800	120,000,000	
	0.75	150	7,500	6,000	300	800	240,000	0.02%
Chicken	60	60,000	50,000, 000	*	120,000	600	720,000,000	100%
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							721,033,200	

^{*} chicken can be raised on ground that is used for other crops



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